

Amendments to the Claims:

This listing of claims will replace all prior version, and listings, of claims in the application.

1. **(Currently Amended)** A membrane translocation peptide carrier moiety comprising consisting of formula;

(a) RRMKWKK (SEQ ID NO: 2)

1              7

or a variant thereof, wherein

(b) SEQ ID No 2, wherein one or more amino acid residues are replaced by a naturally or non-naturally occurring amino acid residue;

(c) SEQ ID No 2, wherein the order of one or more amino acid residues are reversed;

(d) SEQ ID No 2, wherein both (b) and (c) are present together;

(e) SEQ ID No 2, wherein a spacer group is present between any two amino acid residues;

(f) SEQ ID No 2, wherein one or more amino acid residues are in peptidoid form;

(g) SEQ ID No 2, wherein the (N-C-C) backbone of one or more amino acid residues of the peptide carrier moiety has been modified; or

(h) SEQ ID NO:2, having any of (b)-(g) in combination

47. **(Canceled)**

48. **(Canceled)**

49. **(Previously Presented)** A carrier moiety according to claim 1, wherein one or more amino acid residues are replaced by homologous replacement.

50. **(Canceled)**

51. (Previously Presented) A carrier moiety according to claim 1, wherein one or more amino acid residues are replaced by non-homologous replacement.

52. (Canceled)

53. (Currently Amended) A carrier moiety according to ~~any of claims 47 to claim 51~~, wherein the replacement amino acid is a non-natural amino acid selected from the group consisting of: alpha\* and alpha-disubstituted\* amino acids, N-alkyl amino acids\*, lactic acid\*, halide derivatives of natural amino acids ~~such as trifluoro-tyrosine\*~~, p-Cl phenylalanine\*, p-Br phenylalanine\*, p-I phenylalanine\*, L-allyl-glycine\*,  $\beta$ -alanine\*, L- $\alpha$ -amino butyric acid\*, L- $\gamma$ -amino butyric acid\*, L- $\alpha$ -amino isobutyric acid\*, L- $\epsilon$ -amino caproic acid#, 7-amino heptanoic acid\*, L-methionine sulfone\*\*, L-norleucine\*, L-norvaline\*, p-nitro-L-phenylalanine\*, L-hydroxyproline#, L-thioproline\*, ~~and methyl derivatives of phenylalanine (Phe) such as 4 methyl Phe\*, pentamethyl Phe\*, L-Phe (4-amino)®, L-Tyr (methyl)\*, L-Phe (4-isopropyl)\*, L-Tic (1,2,3,4-tetrahydroisoquinoline-3-carboxyl acid)\*, L-diaminopropionic acid # and L-Phe (4-benzyl)\*, wherein the notation \* indicates that the derivative is hydrophobic nature of the derivative, the notation # indicates the hydrophilic nature of the derivative, and the notation ## indicates amphipathic characteristics.~~

54. (Currently Amended) A carrier moiety according to claim 1, wherein the order of the second and third amino acids from the C-terminal end of the peptide are is reversed.

55. (Previously Presented) A carrier moiety according to claim 1, wherein a spacer group is present between any two amino acid residues, and the spacer group is an alkyl group.

56. (Previously Presented) A carrier moiety according to claim 55, wherein the alkyl group is selected from the group consisting of methyl, ethyl and propyl groups.

57. **(Previously Presented)** A carrier moiety according to claim 1, wherein a spacer group is present between any two amino acid residues, and the spacer group is an amino acid residue.

58. **(Currently Amended)** A carrier moiety according to claim 57, wherein the spacer group is selected from the group consisting of glycine or and  $\beta$ -alanine.

59. **(Previously Presented)** A carrier moiety according to claim 1, wherein one or more amino acids are in peptoid form.

60. **(Currently Amended)** A carrier moiety according to claim 1, wherein one or more amino acid residues at any of positions 1, 2, 3, 5 or 6 or 7 of said formula (SEQ ID No. 2) are replaced by a naturally or non-naturally occurring amino acid.

61. **(Currently Amended)** A carrier moiety according to claim 1, wherein the order of one or more amino acid residues at any of positions 1, 2, 3, 5 or 6 or 7 of said formula (SEQ ID No. 2) are reversed.

62. **(Currently Amended)** A carrier moiety according to claims 60, wherein the amino acid residue at position 3 or 7 of said formula (SEQ ID No. 2) is replaced.

63. **(Currently Amended)** A carrier moiety according to claim 60, wherein the amino acid residue at position 3 of said formula (SEQ ID No. 2) is replaced.

64. **(Currently Amended)** A carrier moiety according to claim 61, wherein the order of the amino acid residue at position 3 or 7 of said formula (SEQ ID No. 2) is reversed.

65. **(Currently Amended)** A carrier moiety according to claim 61, wherein the order of the amino acid residue at position 3 of said formula (SEQ ID No. 2) is

USSN 09/854205

6

Attorney Docket No. CCI-010CN

reversed.

66. (Currently Amended) A carrier moiety according to claims 49 or 50 wherein homologous replacement occurs at any of positions 1 and 2 of said formula (SEQ ID No. 2).

67. (Currently Amended) A carrier moiety according to claims 51 or 53, wherein non-homologous replacement occurs at any of positions 3, 4, 5 and 6 of said formula (SEQ ID No. 2).

68. (Currently Amended) A carrier moiety according to claims 1, 49, 50, or 51, or 52, wherein ~~more than one amino acid residue is two amino acid residues of said formula (SEQ ID No. 2)~~ are replaced by homologous or non-homologous replacement.

69. (Currently Amended) A carrier moiety according to claim 68, wherein amino acid residues at positions 2 and 3 of said formula (SEQ ID No. 2) are replaced.

70. (Currently Amended) A carrier moiety according to claim 68, wherein amino acid residues at positions 4 and 5 of said formula (SEQ ID No. 2) are replaced.

71. (Currently Amended) A carrier moiety according to claim 68, wherein amino acid residues at position 5 and 6 of said formula (SEQ ID No. 2) are replaced.

72. (New) A carrier moiety according to claim 53, wherein the halide derivative is selected from the group consisting of trifluorotyrosine\*, p-Cl-phenylalanine\*, p-Br-phenylalanine\*, and p-I-phenylalanine\*.

73. (New) A carrier moiety according to claim 53, methyl derivative of phenylalanine (Phe) is selected from the group consisting of 4-methyl-Phe\*, and pentamethyl-Phe\*.

USSN 09/854205

7

Attorney Docket No. CCI-010CN

74. (New) A carrier moiety of claims 1, wherein the free carboxyl group of the carboxy terminal amino acid residue is in the form -C(O)-NRR', wherein R and R' are each independently selected from the group consisting of: hydrogen, C1-6 alkyl, C1-6 alkylene or C1-6 alkynyl, aryl, each optionally substituted a heteroatom.

75. (New) A carrier moiety according to claim 74, wherein free carboxyl group of the carboxy terminal amino acid residue is a carboxamide group.